

Remarks

Claims 1-41 are currently pending. By this Amendment, claims 1, 8, 11, 13, 16, 18, 21, 22, 26-28, 33, 35, 40 and 41 are amended. After entry of this Amendment, claims 1-41 will be pending. Reconsideration in view of the following remarks is respectfully requested.

Amendments to claims 1, 8, 11, 13, 16, 21, 22, 26-28, 33, 35, 40 and 41

Claims 1, 8, 11, 13, 16, 21, 22, 28, 33, 35, 40 and 41 have been amended to correct minor editorial errors and/or provide better grammatical clarity. No new subject matter has been added.

Claims 26 and 27 have been amended to better define the boundaries of the “circle” recited in the claims.

Objection to Claim 18

Claim 18 is objected to under 37 C.F.R. § 1.75(c) for allegedly being of improper dependent form for failing to further limit the subject matter of a previous claim. This objection is respectfully traversed.

As amended, claim 18 recites “wherein the number of said edge portions is: three and the number of said jaw fingers is three.”

Applicant submits that the amendment to claim 18 overcomes the objection. Accordingly, withdrawal of the objection as to claim 18 is respectfully requested.

Rejection of Claims 1-6, 8-22 and 30-41 Under 35 U.S.C. § 103(a)

The Office action rejects claims 1-6, 8-22 and 30-41 under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 3,385,742 (“Pettersson”) in view of U.S. Patent Publication No. 2002/0050312 (“Ostrovskis”) and optionally further in view of U.S. Patent No. 3,348,291 (“Niedzwiecki”). Applicant respectfully traverses this rejection.

Independent claims 1 and 16 recite “jaw fingers being in contact with at least two such first side portions of the bottom flange of the anti-slip stud where said center regions are located at a shortest distance from said stud center line, in order to keep the bottom flange and hence the anti-slip stud in a predetermined constant position between said jaw fingers.” Independent claims 38 and 39 recite an installation tool comprising “a number of at least three jaw fingers”

and “turning at least the jaw fingers of the installation tool around the jaw center line ... in order to orientate the hard cermet piece of the studs in a predetermined position in the tire.”

The Office action relies on Pettersson for teaching a process for installing studs that involves a tool having a number of fingers, Ostrovskis for teaching studs having a non-round shape and Niedzwiecki for teaching an installation tool having four fingers. According to the Office action, independent claims 1, 16, 38 and 39 would have been obvious in view of Pettersson, Ostrovskis and Niedzwiecki since it would have been obvious to one of ordinary skill in the art to use the tire studs of Ostrovskis and the number of fingers of Niedzwiecki in the process for installing studs of Pettersson. Applicants respectfully disagree.

Pettersson and Niedzwiecki do not teach or suggest using the jaw fingers of a stud mounting tool to orient the studs into a predetermined position and Ostrovskis accomplishes orientation of the studs using only an injection tube without suggesting otherwise. There would have been no motivation to modify the stud installation tool of Pettersson in view of Ostrovskis and Niedzwiecki. Accordingly, the respective combination of features in claims 1, 16, 38 and 39 would not have been obvious over the applied combination of references. A contrary conclusion could only be the product of impermissible hindsight reconstruction based on Applicant's own disclosure.

Pettersson

Pettersson does not teach or even suggest a stud installation tool that ensures proper orientation of a stud relative to the tire. Even if Pettersson can be considered to teach an apparatus for installing studs into a tire having radially movable fingers, the fingers are not used to orient the studs into a predetermined constant position as claimed. Rather, the fingers of the apparatus of Pettersson are used only for widening spike holes in the tire into which the studs are installed and for receiving spikes just after exiting a guide bore. See col. 2, ll. 54-60; col. 3, ll. 46-53.

There is no teaching or suggestion in Pettersson that the number of movable fingers is dependent on the configuration of the studs. In fact, Pettersson teaches only one configuration of the studs, i.e., circular, and does not teach or suggest studs having a cross-sectional shape other than circular. Since circular studs have an infinite number of symmetrical planes, the orientation

of the studs would not have been recognized as a concern in Pettersson and the number of fingers would be inconsequential.

Ostrovskis

Ostrovskis does not teach or even suggest a stud installation tool that comprises a number of jaw fingers used, at least in part, to keep a bottom flange of a stud in a predetermined constant position between the jaw fingers. The studs or spikes of Ostrovskis are “shot, preferably while the running surface is still unvulcanized, into the [blank] running surface” using an injection pipe 30 “in which the spikes are accelerated prior to impact on the periphery of the running surface.” Page 1, paragraph 8. The injection pipe of Ostrovskis is similar to the guide bore of Pettersson and has “such a clear cross section that this cross section surrounds the top view of each of the spikes to be mounted with slight play, in order to guide the spike securely free of torsion and seat it in the proper angular position.” *Id.* In other words, Ostrovskis teaches mounting and orienting spikes using only an injection pipe and does not suggest using any other type of mounting device or component.

As shown in Figure 6 of Ostrovskis, the injection pipe 30 does not include a number of jaw fingers and nowhere in Ostrovskis are jaw fingers mentioned or suggested. Accordingly, orientation of the spikes in Ostrovskis is accomplished using an injection tube without the need for jaw fingers. In contrast, the orientation of the studs as recited in the claims is accomplished using jaw fingers without the need for a guide bore or injection pipe.

Niedzwiecki

Niedzwiecki does not teach or even suggest a stud installation tool that ensures proper orientation of a stud relative to the tire for substantially the same reasons as described above in relation to Pettersson. For example, although Niedzwiecki may be considered as teaching a stud driver tool with a plurality of fingers or jaws, the fingers or jaws are not used to orient the studs into a predetermined constant position as claimed. Rather, the fingers or jaws of the driver tool of Niedzwiecki, like the tool of Pettersson, are used for “expand[ing] the hole in the rubber tire or the like sufficiently to prevent interference between the studs 42 and the tire or the like.” Col. 4, line 75-col. 5, line 2. Further, since the studs taught by Niedzwiecki have a circular cross-

sectional shape (see Figures 4, 5 and 11), proper constant orientation of the studs relative to the tire would not have been suggested by Niedzwiecki.

Conclusion

Since Pettersson and Niedzwiecki do not teach or suggest using the jaw fingers of a stud mounting tool to orient the studs into a predetermined position, and Ostrovskis accomplishes orientation of the studs using only an injection tube without suggesting otherwise, there would have been no motivation to modify the stud installation tool of Pettersson in view of Ostrovskis and Niedzwiecki. Even if there was some motivation to modify Pettersson in view of Ostrovskis and Niedzwiecki to account for non-circular studs and orientation of those studs, which there is not, it could only be to modify the shape of the guide bore of Pettersson since the injection pipe of Ostrovskis is the only feature among the cited references that is specifically related to stud orientation.

Based on the foregoing, claims 1, 16, 38 and 39 would not have been obvious in view of Pettersson, Ostrovskis and Niedzwiecki. Accordingly, withdrawal of the rejection as to these claims is respectfully requested.

Claims 2-6, 8-15, 17-22, 30-37, 40 and 41, being dependent, either directly or indirectly, upon one of base claims 1, 16 or 39, are allowable for at least the same reasons as for the base claims, as well as for the respective additional features recited therein. Accordingly, withdrawal of the rejection as to claims 2-6, 8-15, 17-22, 30-37, 40 and 41 is respectfully requested.

Rejection of Claims 7 and 29 Under 35 U.S.C. § 103(a)

The Office action rejects claims 7 and 29 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Pettersson in view of Ostrovskis and optionally further in view of Niedzwiecki and further in view of U.S. Patent No. 6,374,886 ("Eromaki"). Applicant respectfully traverses this rejection.

Claims 7 and 29, being directly dependent upon base claims 1 and 16, respectively, are allowable for at least the same reasons as for the base claims, as well as for the respective additional features recited therein. Accordingly, withdrawal of the rejection as to claims 7 and 29 is respectfully requested.

Rejection of Claims 23-28 Under 35 U.S.C. § 103(a)

The Office action rejects claims 23-28 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Pettersson in view of Ostrovskis and optionally further in view of Niedzwiecki and further in view of Finland Patent No. 9/65. Applicant respectfully traverses this rejection.

Claims 23-28, being indirectly dependent upon base claim 16, are allowable for at least the same reasons as for the base claim, as well as for the respective additional features recited therein. Accordingly, withdrawal of the rejection as to claims 23-28 is respectfully requested.

Conclusion

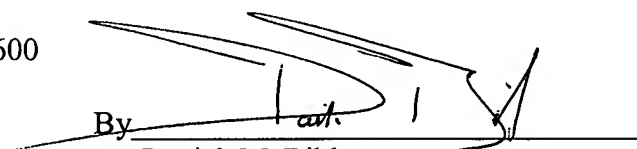
Based on the foregoing, Applicant respectfully submits that the claims are drawn to allowable subject matter and that the application is in condition for allowance. Should the Examiner believe that anything further is necessary to place this application in better condition for allowance, the Examiner is requested to contact Applicant's representative by telephone.

Respectfully submitted,

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